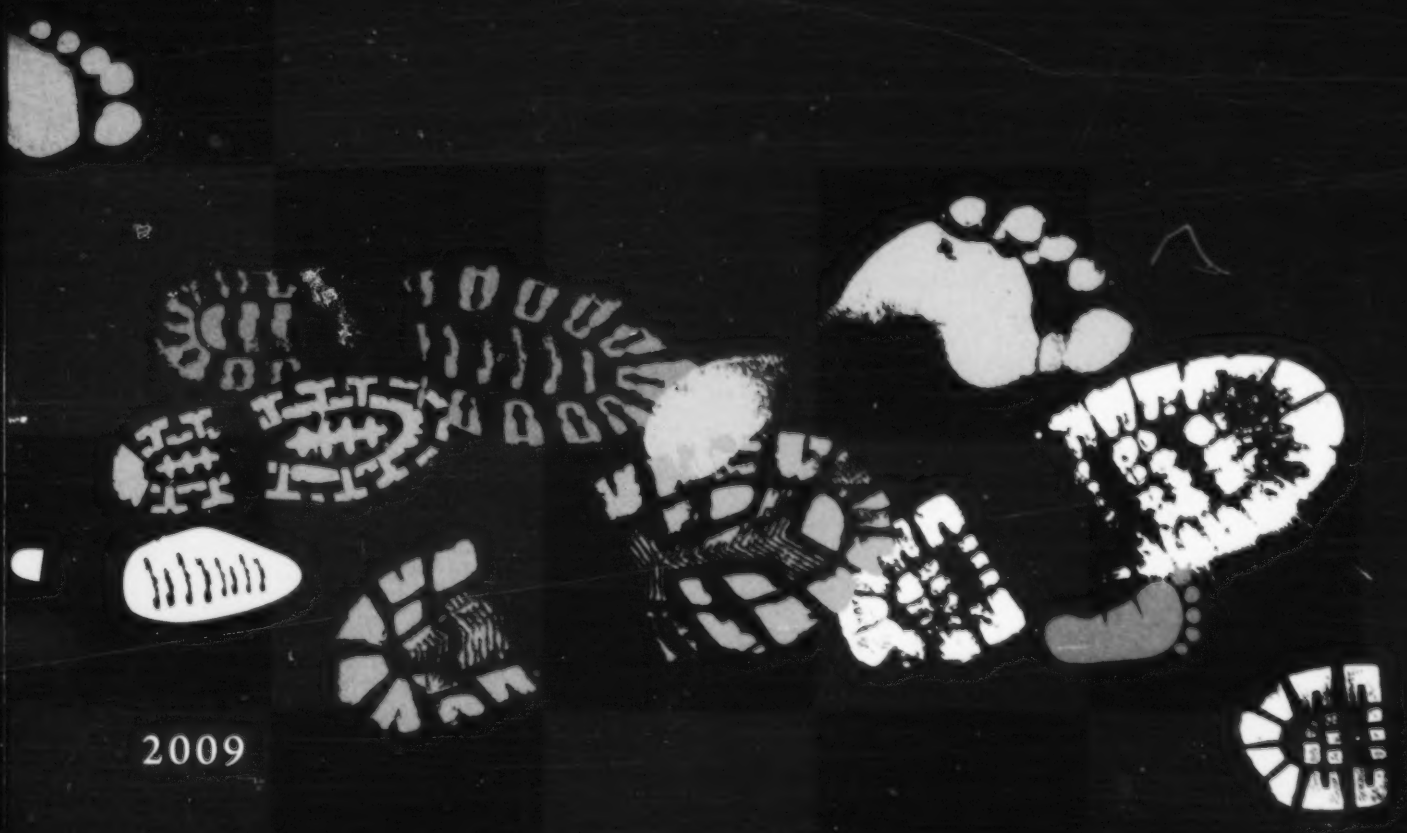
Ontario

Acting Today, Shaping Tomorrow

A Policy Framework for Environmental Education in Ontario Schools



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Contents

Introduction	*3*
Vision	*6*
The Framework	*8*
Goals, Strategies, and Actions	*11*
Teaching and Learning	*11*
Student Engagement and Community Connections	*14*
Environmental Leadership	*18*
Measuring Progress	*22*
Conclusion	*25*
Appendix: *Knowledge, Skills, and Attitudes Developed Through Environmental Education*	*26*

Une publication équivalente est disponible en français sous le titre suivant : *Préparons l'avenir dès aujourd'hui : La Politique d'éducation environnementale pour les écoles de l'Ontario.*

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"Schools have a vital role to play in preparing our young people to take their place as informed, engaged, and empowered citizens who will be pivotal in shaping the future of our communities, our province, our country, and our global environment."

Ontario Ministry of Education, *Shaping Our Schools, Shaping Our Future* (2007), p. 1

Introduction

As countries around the world face complex environmental and social issues, there is a growing recognition that education has a key role to play. It is critical that we help students understand how our individual and collective behaviour affects the environment, and how environmentally responsible lifestyles can contribute to healthy, sustainable ecosystems. Environmental education is a vital tool that helps young people understand the nature and complexity of environmental challenges and builds their capacity to take appropriate action.

As we approach the midpoint of the United Nations Decade of Education for Sustainable Development (2005–2014), governments across Canada and around the world have introduced a wide variety of environmental education and sustainability initiatives. In Ontario, the government undertook to examine environmental education in the curriculum through the Ministry of Education's Curriculum Council. An expert panel, convened by the council and chaired by Dr. Roberta Bondar, was given the mandate "to analyse needs and research successful approaches to teaching and learning about the environment in elementary and secondary schools" (p. 3). The panel's report, *Shaping Our Schools, Shaping Our Future*, was published in June 2007, and the government is now moving forward on the report's thirty-two recommendations.

The government has made a commitment that environmental education, as defined in *Shaping Our Schools, Shaping Our Future*, will be part of every child's learning and that responsible environmental practices will be fostered across the education system. The government and its ministries have also continued to move forward on the environment and climate change agendas.

Environmental education is education about the environment, for the environment, and in the environment that promotes an understanding of, rich and active experience in, and an appreciation for the dynamic interactions of:

- the Earth's physical and biological systems;
- the dependency of our social and economic systems on these natural systems;
- the scientific and human dimensions of environmental issues;
- the positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems.

Shaping Our Schools, Shaping Our Future, p. 6

The environmental education policy framework outlined in this document is based on the understanding that there is no universal model for the implementation of environmental education. Although there is overall agreement on principles and supporting concepts, specific goals and processes must be defined locally to meet the differing environmental, social, and economic conditions that exist in Ontario communities. Accordingly, the framework will guide school boards and schools towards the development of the skills and knowledge needed to implement environmental education in a community-centred context.

The policy framework seeks to move beyond a focus on symptoms – air and water pollution, for example – to encompass the underlying causes of environmental stresses, which are rooted in personal and social values and in organizational structures. It seeks to promote changes in personal behaviour and organizational practices that will allow us to minimize our ecological footprint, while also fostering greater community engagement in meeting that goal.

The framework reflects, promotes, and guides the implementation of environmental education that

- is locally relevant;
- is culturally appropriate;
- enhances understanding that local issues often have provincial, national, and global consequences;
- builds capacity for community-based decision making and environmental stewardship;
- supports lifelong learning;
- supports the definition of environmental education provided in *Shaping Our Schools, Shaping Our Future*.

In *Reach Every Student: Energizing Ontario Education* (2008), the ministry has identified three core priorities that guide all of its efforts in support of public education in Ontario:

- High levels of student achievement
- Reduced gaps in student achievement
- Increased public confidence in publicly funded education

Research has shown that environmental education not only increases students' environmental literacy but also contributes to higher academic achievement for all students. One of the keys to the effectiveness of environmental education in supporting the ministry's three core priorities is its power to foster *student engagement*:

> ***"When students are engaged in their learning and social environment, they are better able to develop the skills and knowledge and grasp the opportunities that can help them reach their full potential, pursue lifelong learning, and contribute to a prosperous, cohesive society. As we move forward with our education agenda, we will bring new energy to our efforts to foster student engagement, both academic and social."***
>
> Ontario Ministry of Education,
> *Reach Every Student: Energizing Ontario Education* (2008), p. 12

The vision for environmental education in Ontario is enunciated in *Shaping Our Schools, Shaping Our Future*:

> ***Ontario's education system will prepare students with the knowledge, skills, perspectives, and practices they need to be environmentally responsible citizens. Students will understand our fundamental connections to each other and to the world around us through our relationship to food, water, energy, air, and land, and our interaction with all living things. The education system will provide opportunities within the classroom and the community for students to engage in actions that deepen this understanding.***
>
> *Shaping Our Schools, Shaping Our Future*, p. 4

The policy framework for environmental education in Ontario offers school boards and schools an approach to environmental education that recognizes the needs of all Ontario students and promotes environmental responsibility in the operations of all levels of the education system.

The framework is intended to ensure that all students will have opportunities to learn and to engage in participative leadership. Environmental education must address the particular needs of students as they relate to cultural background, language, gender, ability, and other aspects of diversity.

The future of environmental solutions ultimately rests with students. Today's students will shape the world of tomorrow. More then ever, it is vitally important that our education system not only prepare students academically but also provide them with the skills, perspectives, and practices they will need to meet the social and environmental challenges of the future.

Developed through extensive research and consultation with education stakeholders, this framework promotes an integrated approach to environmental education, encourages targeted approaches to professional development, emphasizes community involvement, and provides models for guiding implementation and reviewing progress.

The Framework

The framework provided in this document maps out the ministry's policy for environmental education, focusing on a shared vision, a common vocabulary, a commitment to student leadership, and a reliance on the sharing of practices and resources.

It sets three goals, which are described in detail in the next section. These goals are organized around the themes of *teaching and learning*, *student engagement and community connections*, and *environmental leadership*. The first goal promotes learning about environmental issues and solutions. The second engages students to participate actively in practising and promoting environmental stewardship, both in the school and in the community. The third stresses the importance of providing leadership by implementing and promoting responsible environmental practices throughout the education system so that staff, parents, community members, and students become dedicated to living more sustainably.

It is recognized that the implementation of the policy framework for environmental education will occur over time and that it will be guided by local needs and conditions. School boards will be expected to revise or develop an environmental education policy, in collaboration with their community partners, that reflects their local circumstances. This policy will facilitate the implementation of programs and curriculum initiatives to deepen and broaden student learning about the environment and will help guide school boards' efforts in putting environmentally responsible practices in place.

In developing their policies, school boards may find a helpful model in the three-goal structure of this policy framework. As boards across the province develop policies on this model, the three goals outlined in the framework will come to represent a province-wide foundation for environmental education in elementary and secondary schools.

To help schools meet the three goals of the framework, this document outlines a set of implementation strategies and provides examples of indicators that will allow them to map the development and measure the progress of their implementation of environmental education. Using these tools, schools will be able to see their work in environmental education reflected in both their day-to-day activities and their long-term programming.

Environmental Education – A Shared Responsibility

The environmental education policy framework recognizes that environmental education is a shared responsibility and that all of us have roles to play as learners, teachers, leaders, and community members. For example:

- A Grade 1 student can take a message home and teach his or her family about recycling.
- Students can get involved in water conservation in the community and then provide leadership at the school.
- As part of their effort to integrate environmental education across the curriculum, educators can promote a variety of environmentally relevant activities and events, such as recycled-art shows.
- System leaders, school staff, parents, and communities can all try to learn about environmental issues, build awareness, teach new practices, and apply solutions through school-based projects.

Environmental education requires students and others in the education community to examine issues within the context of both the local and the global environmental situation. It also challenges them to develop "the knowledge, skills, and attitudes they will need to cope with an increasingly complex world and [will] enable them to find new solutions in building a healthy society" (*Shaping Our Schools, Shaping Our Future*, p. 17).

Environmental education not only expands students' knowledge of the environment, it also enhances their critical thinking and problem-solving skills and increases their community awareness. In these ways, it helps to support the goals of the ministry's character development initiative. As students' knowledge and skills develop, so does their ability to move from awareness to action and to "think critically, feel deeply, and act wisely" with respect to the environment (Ontario Ministry of Education, *Finding Common Ground: Character Development in Ontario Schools*, 2008, p. 17).

Environmental education also has significant linkages and commonalities with other ministry initiatives. For example, the goals of the environmental education policy framework support the vision of the Ontario First Nation, Métis, and Inuit education policy framework, which states that all students "will have knowledge and appreciation of contemporary and traditional First Nation, Métis, and Inuit traditions, cultures, and perspectives" (Ontario Ministry of Education, *Ontario First Nation, Métis, and Inuit Education Policy Framework*, 2007, p. 7).

Similarly, the recognition that environmental education must be community-centred is consistent with the Aménagement linguistique policy for French-language education. The environmental education policy framework recognizes the need for French-language communities to take account of their unique economic, social, and linguistic circumstances in developing their approaches to environmental awareness and sustainability (see www.edu.gov.on.ca/eng/amenagement).

Finally, the principles of environmental education, which recognize the importance of environmental factors to human well-being, are in alignment with those of the Foundations for a Healthy School framework, which highlight the importance of a healthy physical environment and supportive social environment for successful learning (see www.edu.gov.on.ca/eng/healthyschools/foundations.html).

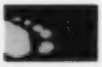
Goals, Strategies, and Actions

Environmental education enables students to develop the knowledge and skills they need to be environmentally active and responsible citizens and to apply their knowledge and skills cooperatively to effect long-term change.

To support student learning, teachers are encouraged to develop the knowledge, skills, and perspectives that will enable them to teach confidently about environmental issues and expose students to varied points of view. By applying the field-based pedagogical skills that they acquire, educators can provide students with relevant learning opportunities. Because environmental education is an integrative undertaking that allows for teaching across disciplines, educators also need the skills to link approaches and content from various disciplines to help students understand complex environmental issues and guide them towards environmental literacy.

GOAL

By the end of Grade 12, students will acquire knowledge, skills, and perspectives that foster understanding of their fundamental connections to each other, to the world around them, and to all living things.



STRATEGY 1.1

Increase student knowledge and develop skills and perspectives that foster environmental stewardship

ACTIONS

The Ministry of Education will:

- embed environmental education expectations and opportunities in all grades and in all subjects of the Ontario curriculum, as appropriate;
- ensure that the standards set forth in *Standards for Environmental Education in the Curriculum* are applied to curricula in all subjects and disciplines during the revision and development process (see www.edu.gov.on.ca/curriculum council/standards.html);
- update *Environmental Education: Scope and Sequence of Expectations, Grades 1–8* and *Environmental Education: Scope and Sequence of Expectations, Grades 9–12* annually on the ministry website in order to help teachers plan meaningful programs for classes and schools (see www.edu.gov.on.ca/ curriculumcouncil/publications.html);
- foster linkages between the environmental education policy framework and other ministry policies, frameworks, and initiatives, such as the character development initiative and the Ontario First Nation, Métis, and Inuit education policy framework, to help students become caring and responsible members of society.

School boards will:

- use relevant curriculum resource documents to support implementation of revised curricula, as appropriate;
- support staff and students in linking environmental knowledge and related skills and activities to the teachings of diverse communities, including First Nation, Métis, and Inuit peoples, and to principles of responsible citizenship.

Schools will:

- provide opportunities for students to acquire knowledge and skills related to environmental education in all subject areas, and encourage them to apply their knowledge and skills to environmental issues (e.g., loss of biodiversity, climate change, waste reduction, energy conservation) through action-based projects;

- challenge students to develop skills in systems thinking and futures thinking that they will need to become discerning, active citizens.

STRATEGY 1.2

Model and teach environmental education through an integrated approach that promotes collaboration in the development of resources and activities.

ACTIONS

The Ministry of Education will:

- provide resources for teaching concepts and practices related to environmental education;
- offer professional learning opportunities that develop field-based pedagogical skills;
- integrate environmental education into subject-specific training activities related to the release of revised curriculum documents, including training aimed at new teachers;
- liaise with faculties of education about expectations and opportunities for environmental education as provided in the Ontario curriculum;
- encourage faculties of education to address environmental education in their pre-service curricula;
- encourage the sharing of ideas and resources through the Ontario Educational Resource Bank and e-Community Ontario;
- share research that identifies effective environmental education practices;
- increase the availability of teacher resources about green technologies and innovative practices that are applicable to environmental education, in collaboration with other ministries.

Enhancing Environmental Education

The Upper Canada District School Board has established an environmental focus group to examine environmental education across the board and identify opportunities to enhance programs, support teachers, build community partnerships, and promote co-op placements. The board has also provided new resources such as field study kits for outdoor education and has upgraded equipment to support advanced studies in environmental monitoring.

School boards will:

- foster collaborative opportunities for educators to develop and share activities, integrated approaches, and action research projects related to environmental education;
- encourage innovative interdisciplinary programs that focus on the environment and include field components.

Schools will:

- develop learning opportunities that will help students understand the underlying causes, the multiple dimensions, and the dynamic nature of environmental issues;
- develop professional learning communities to share effective practices about pedagogical strategies that support learning and teaching about the environment.

Students must be active participants in shaping their future. Student engagement involves the active participation of all students in sustainable environmental practices, a strong student voice in decision making, and involvement in the school and community in meaningful ways. Environmental education stimulates student engagement by focusing on the importance of relationships between action and reflection, local and global issues, and people's desires and needs.

Student engagement has a positive effect on student achievement and motivation. Students who practise leadership in their schools will become effective citizens in their communities. The community also has a vital role to play in providing environmental education opportunities and linkages for the school. Community groups can share their expertise and engage students in experiential learning and activities related to environmental education and careers. Networking opportunities and virtual communities can also be explored.

GOAL

Increase student engagement by fostering active participation in environmental projects and building links between schools and communities.

STRATEGY 2.1

Build student capacity to take action on environmental issues.

ACTIONS

The Ministry of Education will:

- integrate opportunities throughout the curriculum for students to take actions that foster engaged citizenship within and outside the classroom;
- facilitate the sharing of pedagogical approaches that encourage opportunities to build student leadership skills;
- align environmental education with other government initiatives that encourage students to find contextual solutions through principled decision making and critical thinking;
- facilitate the sharing of school board, school, and student projects from across the province that demonstrate engagement in environmental stewardship;
- promote links between formal education systems (e.g., the school system) and non-formal education systems (e.g., non-governmental organizations).

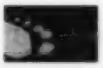
School boards will:

- engage student leaders in the design and delivery of environmental education projects at the board level;
- share school and student projects across the board that demonstrate engagement in environmental stewardship;
- encourage environmental learning for all students inside and outside the classroom;
- support students, on a system-wide basis, as they develop skills and act as decision makers to effect positive environmental change.

Schools will:

- engage student leaders in the design and delivery of environmental education at the school level;
- encourage students to enrich their learning by using information technology to access resources, connect with others, and create e-communities that focus on environmental issues;
- encourage action research that promotes partnerships and the innovative implementation of environmental education concepts and principles;
- create opportunities for students to address environmental issues in their homes, in their local communities, or at the global level;

- work with their school councils in promoting environmental education;
- encourage students to plan environmental education activities for all students;
- encourage all students to participate in environmental education activities on school grounds.



STRATEGY 2.2

Provide leadership support to enhance student engagement and community involvement.

ACTIONS

The Ministry of Education will:

- develop implementation tools for principals to support a school culture that encourages student participation and cooperation in environmental activities in the community;
- collaborate with the Ontario College of Teachers to ensure that appropriate attention to environmental education is reflected in the college's qualification guidelines;
- collaborate with the Ontario College of Teachers to ensure that an additional qualification course supports environmental education;
- promote opportunities for educators and students to expand their knowledge about careers related to the environment;
- facilitate access to environmental education resources developed by school boards and other stakeholders;
- develop links to other ministries and other agencies in order to share information about environmental resources for students, educators, and parents;
- integrate references to environmental education, as relevant, into the ministry's parent involvement committee guide and school council guide.

School boards will:

- offer community-linked experiences and programs, such as a Specialist High Skills Major focused on the environment, or cooperative education and work experience opportunities that are relevant to environmental education;
- encourage the parent involvement committee to provide advice on the implementation of environmental education;

- share information about local resources that support environmental awareness and protection, energy conservation, waste management, protection of the biosphere, and outdoor education;
- share links and partnerships with community organizations (such as non-profit organizations, businesses, farms, and industries) to help extend engagement in and responsibility for environmental education to the broader community.

Schools will:

- work with parents, the school council, community groups, and other education stakeholders to promote environmental awareness and foster appropriate environmentally responsible practices;
- enrich and complement students' classroom learning by organizing out-of-classroom experiences and activities (such as the naturalization of the school yard), as appropriate;
- encourage students to consider ways of completing their community service requirements that involve addressing environmental issues in their communities, in a manner consistent with school board policy.

By Students ... For Students

When St. Martin School, of the Superior North Catholic District School Board, in Terrace Bay set out to create a new green school yard and outdoor education classroom, students were involved in every phase of the project, from researching various types of plants to planting and maintenance. Students continue to develop and maintain "their" green classroom, which is enjoyed by the entire community.

3. Environmental Leadership

> ***"Environmental education is a whole-system responsibility, and therefore system leaders will play a critical role in signalling the importance of environmental education and providing a framework in which it is supported, valued, and considered as part of a good educational outcome for every student."***
>
> *Shaping Our Schools, Shaping Our Future*, p. 11

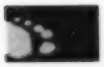
By exercising environmental responsibility in their own operations, organizations within the education system can serve as models of corporate citizenship for students and the broader community and ensure coherence with the environmental messages conveyed by the curriculum.

System leaders can play a vital role in environmental leadership by encouraging all members of the school community to adopt responsible environmental behaviour and management practices.

System leaders are also responsible for developing an environmental education policy, guided by this policy framework, and school leaders play an important role in developing implementation plans that align with the board's policy.

GOAL

Increase the capacity of system leaders to implement evidence-based environmental education programming, practices, and operations.



STRATEGY 3.1

Increase the extent to which environmental education is integrated into school board policies, procedures, and strategic plans.

ACTIONS

The Ministry of Education will:

- support school boards in developing environmental education policies based on the environmental education policy framework;
- share tools for planning environmental education activities, including outdoor experiences, in local places;
- include environmental education initiatives in its recognition programs (for students, educators, parents, school leaders, and school boards);
- integrate environmental awareness and responsible environmental practices into activities connected with the application of the Ontario leadership framework for school and system leaders (e.g., by using environmental initiatives as case studies in leadership workshops);
- encourage the alignment of materials and resources for environmental education with those for other initiatives, such as character development, healthy schools, and the Ontario First Nation, Métis, and Inuit education policy framework, as appropriate.

School boards will:

- develop or revise a school board environmental education policy that promotes environmental literacy and environmentally responsible management practices;
- in connection with their policy development and implementation process:
  - create a system-wide environmental education and management committee;

Making Connections

The Halton District School Board is making connections to promote environmental education. In partnership with Halton Region, it is encouraging walking and biking to school through the "Active and Safe Routes to School" program, and it is also piloting a green-cart program for waste-minimization in several of its schools. The board's environmental initiative also includes the provision of environmental learning resources, experiential learning opportunities, an elementary Earth Week event, and professional development opportunities related to environmental education.

- embed environmental education as a priority in the board's strategic plan;
- develop and implement a plan for integrating sustainable environmental practices into each of the board's operational services;
- develop an environmental action plan that is annually reviewed, renewed, and communicated to all school board employees and trustees;
- review existing board recognition programs for opportunities to include recognition of responsible environmental leadership;
- integrate in-service opportunities related to environmental education into staff development for all employee groups;
- encourage all school board personnel, the parent involvement committee, students, parents, and school councils to adopt and promote environmentally appropriate practices.

Schools will:

- create or revise an implementation plan that aligns with the school board environmental education policy;
- adopt environmentally responsible management practices that are consistent with board policy and consider the advice of members of the school community on these matters;
- encourage staff to develop knowledge and skills related to environmental education and responsible environmental practices and encourage mentoring opportunities;
- facilitate sharing of staff expertise and knowledge through existing networks.

STRATEGY 3.2

Enhance the integration of environmentally responsible practices into the management of resources, operations, and facilities.

ACTIONS

The Ministry of Education will:

- research and promote effective models for assisting school boards and schools in the implementation of its initiatives for greening Ontario schools (such as energy conservation and green cleaning);
- support collaboration and networking, identify projects, and develop frameworks and models for enhancing environmentally responsible operations in the education sector;

- promote partnerships with other ministries that have expertise in environmental areas in order to develop strategies and resources to support Ontario schools in implementing the Ministry of Education's initiatives for greening Ontario schools.

School boards will:

- implement strategies, programs, and procedures to protect and conserve the environment, while ensuring that schools and workplace environments are safe and healthy;
- develop environmentally responsible purchasing practices, while considering quality, price, and service.

Schools will:

- encourage staff to participate in school or school board sessions on environmental sustainability and the role of staff in preparing and implementing the school and/or school board's action plan;
- plan an environmentally responsible approach to managing resources and operations.

Teams Provide School-Based Leadership

In the Avon Maitland District School Board, conservation is encouraged by specially trained school conservation teams, consisting of the principal, the caretaker, students, and a lead teacher. The board also promotes conservation through school presentations on conservation and sustainability and by using energy-efficient technologies, conducting school audits, and running a conservation campaign.

This section provides examples of indicators that are linked to the goals, strategies, and actions of the environmental education policy framework. Such indicators can be used at the various stages of implementation to assist with planning and measuring progress.

The use of indicators can help ministry, school board, and school leaders keep in mind a variety of considerations that are key to successful implementation. Boards can be guided by a well-designed set of indicators in gathering information or data that will inform their decision making. Indicators are adaptable to a wide variety of local contexts and can be integrated with indicators related to other frameworks, policies, and programs.

The examples provided on the following pages are grouped into three categories, which describe:

- the status of environmental education as implementation begins,
- the supports that are available to facilitate implementation, and
- the results achieved at different stages of implementation.

Indicators in these three categories are referred to as status indicators, facilitative indicators, and effect indicators, respectively. All three categories of indicators are used together to assist with planning and measuring progress.

Status indicators tell you where you are at the beginning of the process. They provide the baseline information against which future progress can be measured.

Ministry	School Board	School
• Number of school boards that have environmental education policies in place • Type of professional learning provided • Nature of environmental education opportunities and expectations provided in the revised curriculum • Type of teaching resources available	• Availability of community partnerships for environmental education purposes • Availability of environmental education training • Availability of teaching resources	• Types of environmentally responsible management practices currently in place • Type and number of environmental education resources in school library and classrooms

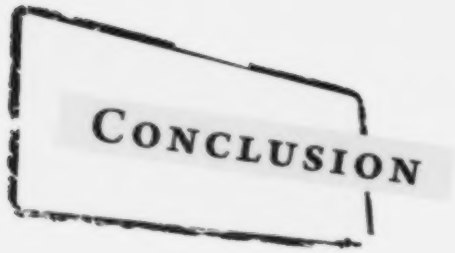
Facilitative indicators tell you about the supportive context and processes already in place that can facilitate implementation. They can be divided into context indicators, which describe the general supportive context, and process indicators, which describe the level of engagement of the ministry, the school board, the school, and other stakeholders in the process.

	Ministry	School Board	School
Context Indicators	• Availability of resources from other ministries • Availability of training	• Support dedicated to school resources for environmental education or greening of practices/facilities	• Type of community groups that could support implementation at school level
Process Indicators	• Extent of participation by stakeholders • Extent of training already offered • Existence of interbranch and interministry mechanisms of cooperation	• Extent of participation by stakeholders and broader community • Existence of board-wide environmental education committees • Existence of activities and programs that use environmental education as an integrating theme	• Existence of environmental education committees in schools • Existence of student projects related to environmental education • Level of engagement of youth organizations

Effect indicators measure short-term, mid-term, and long-term results and are usually known as output, outcome, and impact indicators, respectively.

	Ministry	School Board	School
Output Indicators	• Environmental education integrated into curriculum review process • Environmental education integrated into other frameworks and guides	• Policy for environmental education established • School board staff participating in professional development related to environmental education • Board-wide committee established to coordinate implementation within the board	• Environmental education plan developed • Schools consider purchases of resources and materials through the lens of environmental education and environmentally responsible management
Outcome Indicators	• Shared inventory of school board practices created	• Implementation plan in place that is renewed, revised, and communicated annually	• School council provides advice on implementation • Community partners involved as resources for school planning • Number of student-focused, action-oriented environmental education projects increasing
Impact Indicators	• Student leadership and engagement improved • Alignment between initiatives improved, leading to better outcomes for all students	• Opportunities for student leadership in environmental education increased • Environmentally responsible practices are included in board activities and operations	• Environmentally responsible practices included in school activities and operations • Students are more involved and engaged in environmental education • Environmental education used as an integrating theme for planning purposes at the whole school level

Adapted from "Table 2: Understanding the Differences between ESD Indicator Types", in *Asia-Pacific Guidelines for the Development of National ESD Indicators* (Bangkok: UNESCO, 2007), pp. 37–39. Originally published in D. Tilbury and S. Janousek, "Element 1: Summary of Documented Experiences in Development of ESD Indicators & Element 3: Networking in Expert Groups on ESD Indicators", Report submitted by the Australian Research Institute of Education for Sustainability to the Australian Government Department of the Environment and Heritage, 2006.



Community Involvement and System-Wide Partnerships

The Ministry of Education is committed to working with education partners across Ontario to realize the vision of environmental education and achieve the key goals of the policy framework for environmental education in Ontario. The ministry, school boards, and schools each have a vital role to play.

The environmental education framework addresses the need for a unified and cohesive approach that will ensure consistent province-wide implementation. Its development has been guided by the following five key principles:

1. Environmental education is not only about visible environmental issues but also about their underlying causes, and so places an emphasis on personal and social values and active stewardship.
2. Student engagement and leadership are central to environmental education.
3. Leadership by example means integrating elements of environmental education and responsible environmental practices into all decisions and actions.
4. Environmental education must be implemented locally so that it is meaningful and relevant to our diverse communities.
5. Realizing environmental education in Ontario schools is a long-term, ongoing process that will evolve over time.

This framework will enable Ontario's young people to develop the skills, knowledge, and perspectives they will need to become engaged and environmentally responsible citizens.

Knowledge, Skills, and Attitudes Developed Through Environmental Education

The following outlines some of the knowledge, skills, and attitudes that environmental education should promote among students.

KNOWLEDGE

Environmental education should enable students to learn about:

- the resources of the Earth, particularly soil, water, minerals, and air, their characteristics, and their role in supporting living organisms;
- the nature of ecosystems and biomes, their health, and their interdependence within the biosphere;
- the dependence of humans on environmental resources for life and sustenance;
- the characteristics of human societies, including nomadic, hunter-gatherer, agricultural, industrial, and post-industrial, and the impact of each on the natural environment;
- the role of science and technology in the development of societies and the impact of different technologies on the environment;
- the process of urbanization and the implications of deruralization;
- the interconnectedness of political, economic, environmental, and social issues in the present world;
- cooperative national and international efforts to find solutions to common environmental issues and to implement strategies for a more sustainable future.

SKILLS

Environmental education should enable students to:

- define such fundamental concepts as environment, community, development, and technology, and apply these definitions in local, national, and global contexts;
- use a range of resources, communications skills, and technologies in addressing environmental questions;
- develop problem-solving skills and critical and creative thinking skills, including the ability to reason and apply logic, to recognize and apply abstract patterns, to identify connections and relationships between ideas and issues, and to test ideas against new information and against personal experience and beliefs;
- work towards a negotiated consensus when there are differences of opinion;
- detect and assess bias and evaluate different points of view;
- recognize the need to incorporate an environmental perspective in decision-making models.

ATTITUDES

Environmental education should enable students to:

- appreciate the resilience, fragility, and beauty of nature and develop respect for the place and function of all living things in the overall planetary ecosystem;
- appreciate that human life depends on the resources of a finite planet;
- appreciate the role of human ingenuity and individual creativity in ensuring survival and achieving sustainable progress;
- become mindful of perspectives other than their own and be prepared to modify their ideas and beliefs when appropriate (e.g., understand and respect First Nation, Métis, and Inuit concepts of knowledge);
- appreciate the challenges faced by the human community in defining and implementing the processes needed for environmental sustainability;
- develop a sense of balance in decisions that involve conflicting priorities;
- maintain a sense of hope and a positive perspective on the future.

Adapted from "Learning Outcomes" on the Learning for a Sustainable Future (LSF) website, at http://www.lsf-lst.ca/en/teachers/learning_outcomes.php.

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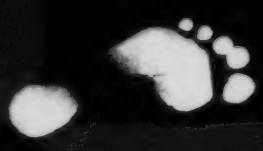

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